

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Hirofumi FUJII, et al.

SERIAL NO: NEW APPLICATION

GAU:

FILED: HEREWITH

EXAMINER:

FOR: ROD TARGET FOR ARC EVAPORATION SOURCE, MANUFACTURING METHOD THEREFOR, AND ARC DEPOSITION DEVICE

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).
- ☐ A credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).
- ☐ A credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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STATEMENT OF RELEVANCY

Reference AO (7-173617) on Form PTO-1449:

explained in the specification

PURPOSE: To facilitate arc spot scanning control by placing an anode electrode near a deposition source and to make a charging electric current value to anode controllable in the vacuum arc deposition device having an anode for a cylindrical evaporating source.

CONSTITUTION: Anode electrodes 3, 4 are placed near both ends of an evaporating source 2. Further, an arc power source device 5 and control device 6 are provided, independently controlling the charging electric current value to the anode electrodes 3, 4. Next, vacuum arc discharge is generated from the evaporating source 2, arc spot is appeared on the surface of the evaporating source 2, controlling spot scanning, a target material is evaporated. This vapor is moved to a base plate 7. The film is formed on the base plate 7.

Reference AP (2000-80466) on Form PTO-1449:

an example of a conventional arc type ion plating apparatus

PROBLEM TO BE SOLVED: To provide a vacuum arc deposition device capable of obtaining a desired film thickness distribution and moreover small in the restriction of the shape of the material to be vapor-deposited.

SOLUTION: This vacuum arc deposition device is provided with a cathode as an evaporating source and an anode executing arc discharge with the cathode in a vacuum vessel placed with the material to be vapor-deposited and provided with an arc power source capable of controlling the value of the electric current to be charged to the cathode or anode, and the evaporating source has a long-length body long in the height direction of the material to be vapor-deposited and is arranged around the material to be vapor-deposited.

Reference AQ (EP 1 081 247 A2) on Form PTO-1449:

an example of a conventional arc type ion plating apparatus

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
242588US3SERIAL NO.
NEW APPLICATION

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT
Hirofumi FUJII, et al.FILING DATE
HEREWITH

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO	7-173617	07/11/95	Japan		X
	AP	2000-80466	03/21/00	Japan		X
	AQ	EP 1 081 247 A2	08/18/00	Europe		X
	AR					
	AS					
	AT					
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	
	AX	
	AY	
	AZ	<input type="checkbox"/> Additional References sheet(s) attached

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.